## **AMENDMENTS TO THE CLAIMS**

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1. (Currently amended) A method of validating an identity of a user using a pointing device comprising the steps of:

providing data for the display of a background image, the background image providing a user with visual reference points to help the user to remember and create their signature,

providing data for positioning at least one object on said background image,

receiving a sampled pointing device (PD) signature including a set of position vectors, said PD signature generated by sampling a plurality of events corresponding to positions of a cursor while operating said pointing device to provide data relative to said background image,

comparing said sampled PD signature to a stored PD signature representing the identity of the user, and

validating said identity of said user in response to said comparing step.

- 2. (Previously Presented) The method of claim 1 wherein moving said PD manipulates said cursor on said background image.
- 3. (Previously Presented) The method of claim 2 wherein operating said PD includes moving a mouse.
- 4. (Previously Presented) The method of claim 1 wherein said PD signature includes data generated by clicking of said pointing device.
- 5. (Previously Presented) The method of claim 1 wherein said sampling of a plurality of events includes a drag and drop event by said pointing device.
- 6. (Previously Presented) The method of claim 1 wherein said sampling of a plurality of events includes sampling a time component.
- 7. (Previously Presented) The method of claim 1 wherein said step of comparing includes applying a set of nodes to analyze said sample signature and determining if said sample signature satisfies a threshold matching criteria.

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8. (Previously Presented) The method of claim 1 further comprising the steps of: receiving a plurality of signature exemplars; and creating a set of nodes associated with said exemplars.

- 9. (Previously Presented) The method of claim 1 wherein displaying said background image includes displaying a graphic.
- 10. (Previously Presented) The method of claim 1 wherein operating said pointing device includes positioning said cursor relative to said objects.
- 11. (Previously Presented) The method of claim 1 wherein operating said pointing device includes positioning a draggable icon on said background image.
- 12. (Original) The method of claim 1 wherein said step of sampling a plurality of events includes sampling horizontal and vertical positions of said cursor and a time parameter associated with respective ones of said events.
- 13. (Original) The method of claim 1 wherein said step of sampling a plurality of events includes sampling a mode of said input device.
- 14. (Original) The method of claim 13 wherein said step of sampling a mode of said input device includes a step of sampling a normal mode, a "drag and drop" mode, or a click mode of said input device.
- 15. (Original) The method of claim 1 wherein said PD signature is generated by processing said set of position vectors including processing a series of said events using a plurality of nodes.
  - 16. (Original) The method of claim 1 further comprising a step of: receiving a verification request from a provider; and issuing in response to said step of validating, an authorization message to said provider.

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17. (Currently Amended) A software stored on a computer readable medium for validating a user's identity comprising software configured to perform the steps of:

providing data for the display of an object map to a user;

receiving data representing signature characteristics generated by processing a set of position vectors resulting from user manipulation of a cursor to draw lines or reposition or click on one or more icons positioned on a background <u>image</u>, the background <u>image</u> providing the user with visual reference points to help the user remember and create their signature, using an input device to provide a sample of a plurality of events corresponding to positions of said cursor so as to further provide a sampled signature including said set of position vectors;

comparing said signature characteristics to characteristics of a stored signature representing the user's identity;

validating said user's identity in response to said comparing step.

- 18. (Previously presented) The software on a computer readable medium of claim 17 wherein using said PD to manipulates said cursor on a background image.
- 19. (Previously presented) The software on a computer readable medium of claim 18 wherein using said pointing device includes moving a mouse.

Claims 20 - 32 (cancelled)

33. (Currently Amended) A verification server for use in a signature recognition system including a user computer system having a pointing device and a display screen, the user computer system operational to (i) display a virtual pad on said display screen, (ii) respond to a positioning of said pointing device to position a cursor on said virtual pad, and (iii) provide a collection of vectors describing an operation of said pointing device with respect to said cursor; said verification server comprising:

an interface in communication with said user computer system for receiving said collection of vectors associated with drawing lines or the reposition or click on one or more icon positioned on a background <u>image</u>, the background <u>image</u> providing the user with visual reference points to help the user remember and create their signature,

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a signature recognition engine configured to (i) process said vectors, (ii) compare said processed vectors to exemplar signature data and, in response, (iii) provide signature recognition data.

## Claims 34 – 48 (Cancelled)

- 49. (Previously Presented) The method of claim 1 wherein providing data for the display of a background image includes downloading a virtual pad consisting of said background image and said object.
- 50. (Previously Presented) The method of claim 49 further comprising repositioning said objects on said background image to create said PD signature.
- 51. (Previously Presented) The method of claim 1 further comprising displaying said background image on a computer display screen.
- 52. (Previously presented) The software stored on a computer readable medium of claim 17 wherein said step of displaying includes displaying a background image and an icon on a computer display screen.

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